

### Claims

What is claimed is:

1. A material that can be reconstituted to provide a replacement fluid for use in treating a joint malady of an animal made by the process comprising:

collecting synovial from donor animals;

removing impurities, cellular and pathogenic components from said synovial fluid to  
5 create a purified synovial fluid; and,

lyophilizing said purified synovial fluid.

2. The material of claim 1 wherein said process of collecting synovial from donor animals further comprises:

selecting a donor joint from said donor animal;

injecting a joint capsule of said selected donor joint with and needle attached to a  
5 syringe;

aspirating fluid joint contents into said syringe; and,

preserving said fluid joint contents for further processing.

3. The material of claim 2 wherein said process of preserving said fluid joint contents for further processing further comprises:

freezing said fluid joint contents at a temperature less than zero degrees Centigrade.

4. The material of claim 1 wherein said process of removing impurities, cellular and pathogenic components from said synovial fluid to create a purified synovial fluid further comprises:

separating higher density particles within said synovial fluid by centrifuge;

5 removing said higher density particles from a supernate of said synovial fluid; and,

filtering said supernate to remove additional particulates greater than approximately  
.45 mm in size.

5. The material of claim 1 wherein said process of lyophilizing said synovial fluid further comprises:

stabilizing said purified synovial fluid;

freezing said purified synovial fluid at approximately -45 degrees Centigrade

reducing the ambient air pressure to said purified synovial fluid to less than 50 microns of mercury;

maintaining said purified synovial fluid at -35 degrees Centigrade for approximately 72 hours;

maintaining said purified synovial fluid at 0 degrees Centigrade for approximately 12 hours; and,

maintaining said purified synovial fluid at 25 degrees Centigrade for approximately 12 hours.

6. The material of claim 5 wherein said process of lyophilizing said synovial fluid further comprises:

placing said purified synovial fluid under vacuum.

7. The material of claim 1 further comprising the process of:

providing said lyophilized synovial fluid to users for reconstitution as an intraarticular injection in an aseptic manner.

8. The material of claim 7 wherein said process of providing said lyophilized synovial fluid to users for reconstitution as an intraarticular injection in an aseptic manner further comprises:

providing said lyophilized synovial fluid in a vacuum-sealed vial for reconstitution within said vial to produce a single-use intraarticular injection.

9. A method of treating a joint malady of an animal comprising:

intraarticularly injecting a replacement fluid in the joint space of said animal, said replacement fluid comprising synovial fluid that has been harvested from other animals that has been processed, lyophilized, packaged and reconstituted.

10. A method of treating a joint malady of an animal by intraarticularly injecting a purified synovial fluid in the joint space of said animal, said purified synovial fluid made by the process of:

collecting synovial from donor animals;

5 removing impurities, cellular and pathogenic components from said synovial fluid to create a purified synovial fluid;

lyophilizing said purified synovial fluid; and,

reconstituting said purified synovial fluid to approximately its original volume.

11. A method of claim 10 wherein said step of collecting synovial from donor animals further comprises:

selecting a donor joint from said donor animal;

5 injecting a joint capsule of said selected donor joint with and needle attached to a syringe;

aspirating fluid joint contents into said syringe; and,

preserving said fluid joint contents for further processing.

12. A method of claim 11 wherein said step of preserving said fluid joint contents for further processing further comprises:

freezing said fluid joint contents at temperature less than zero degrees Centigrade.

13. A method of claim 10 wherein said step of removing impurities, cellular and pathogenic components from said synovial fluid to create a purified synovial fluid further comprises:

separating higher density particles within said synovial fluid by centrifuge;

removing said higher density particles from a supernate of said synovial fluid; and,

5            filtering said supernate to remove additional particulates greater than approximately .45 mm in size.

14. A method of claim 10 wherein said step of lyophilizing said synovial fluid further comprises:

          stabilizing said purified synovial fluid;

          freezing said purified synovial fluid at approximately -45 degrees Centigrade

5            reducing the ambient air pressure to said purified synovial fluid to less than 50 microns of mercury;

          maintaining said purified synovial fluid at -35 degrees Centigrade for approximately 72 hours;

          maintaining said purified synovial fluid at 0 degrees Centigrade for approximately 12 hours; and,

10            maintaining said purified synovial fluid at 25 degrees Centigrade for approximately 12 hours.

15. A method of claim 14 wherein said step of lyophilizing said synovial fluid further comprises:

          placing said purified synovial fluid under vacuum.

16. A method of claim 10 further comprising the step of:

          providing said lyophilized synovial fluid to users for reconstitution as an intraarticular injection in an aseptic manner:

17. A method of claim 16 wherein said step of providing said lyophilized synovial fluid to users for reconstitution as an intraarticular injection in an aseptic manner further comprises:

          providing said lyophilized synovial fluid in a vacuum-sealed vial for reconstitution within said vial to produce a single-use intraarticular injection.

18. A method of manufacturing a concentrated material that can be reconstituted to provide a replacement fluid for use in treating a joint malady of an animal comprising:

collecting synovial from donor animals,

removing impurities, cellular and pathogenic components from said synovial fluid;

5 lyophilizing said purified synovial fluid to form a dense concentrate; and,

packaging said lyophilized concentrate in a manner so as to provide said lyophilized concentrate in a form that is reconstitutable to serve as an injectable replacement fluid.

19. A method of claim 18 wherein said step of collecting synovial from donor animals further comprises:

selecting a donor joint from said donor animal;

injecting a joint capsule of said selected donor joint with and needle attached to a

5 syringe;

aspirating fluid joint contents into said syringe; and,

preserving said fluid joint contents for further processing.

20. A method of claim 19 wherein said step of preserving said fluid joint contents for further processing further comprises:

freezing said fluid joint contents at temperature less than zero degrees Centigrade.

21. A method of claim 18 wherein said step of removing impurities, cellular and pathogenic components from said synovial fluid to create a purified synovial fluid further comprises:

separating higher density particles within said synovial fluid by centrifuge;

removing said higher density particles from a supernate of said synovial fluid; and,

5 filtering said supernate to remove additional particulates greater than approximately .45 mm in size.

22. A method of claim 18 wherein said step of lyophilizing said synovial fluid further comprises:

stabilizing said purified synovial fluid;

freezing said purified synovial fluid at approximately -45 degrees Centigrade

5       reducing the ambient air pressure to said purified synovial fluid to less than 50  
microns of mercury;

maintaining said purified synovial fluid at -35 degrees Centigrade for approximately  
72 hours;

10       maintaining said purified synovial fluid at 0 degrees Centigrade for approximately 12  
hours; and,

maintaining said purified synovial fluid at 25 degrees Centigrade for approximately 12  
hours.

23. A method of claim 22 wherein said step of lyophilizing said synovial fluid further  
comprises:

placing said purified synovial fluid under vacuum.

24. A method of claim 18 further comprising the step of:

providing said lyophilized synovial fluid to users for reconstitution as an intraarticular  
injection in an aseptic manner:

25. A method of claim 24 wherein said step of providing said lyophilized synovial fluid to  
users for reconstitution as an intraarticular injection in an aseptic manner further comprises:

providing said lyophilized synovial fluid in a vacuum-sealed vial for reconstitution  
within said vial to produce a single-use intraarticular injection.